PLANTAE NOVAE AFRICANAF.

"Ex Africa semper aliquid novi."—*Pliny.*

SERIES XXII.

By

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Elsiea Leighton gen. nov. Liliacearum.

Bulbi elongati e basibus foliorum hornotinorum compositi, caudicibus longe persistentibus. *Folia* radicalia elongata, synantha. *Inflorescentia* racemosa. *Perianthii segmenta* connata. *Filamenta* tubi faucibus adnata; *antherae* dorsifixae. *Ovarium* obconicum. *Capsula* acute angulata. *Semina* atra planiuscula.

Superficially these plants resemble Ornithogalum but differ in the following respects:—

1. The perianth has a distinct tube at the base, to which the filamenst are attached. Although the perianth is persistent it does not envelop the fruit, but tends to spread and leave the capsule exposed.

2. The capsule is stipitate and the seeds are flatter than in Ornithogalum.

3. The axis of the bulb persists at the base and may form a fairly long underground stem from which both fibrous and fleshy roots arise. This character may be connected with the swamp conditions in which these plants grow.

4. The elongated bulbs are composed of few scales which are the bases of the existing leaves. Occasionally there are one or two scales from previous leaves.

If the definition of the genus Ornithogalum is modified to include these plants it will become even more unwieldy and heterogeneous than it is at present. There are other species now placed in Ornithogalum which, when fresh material is available for study, may prove to belong to Elsiea.

The genus is named in honour of Miss Elsie Esterhuysen of the Bolus Herbarium, whose collections have formed a valuable contribution to the knowledge of the flora of the higher mountains of the South-Western Cape.

KEY TO THE SPECIES.

Inflorescence corymbose, bracts much shorter than pedicels 1. *corymbosa.*
Inflorescence spicate, bracts equal to, or exceeding pedicels 2. *Flanaganii.*

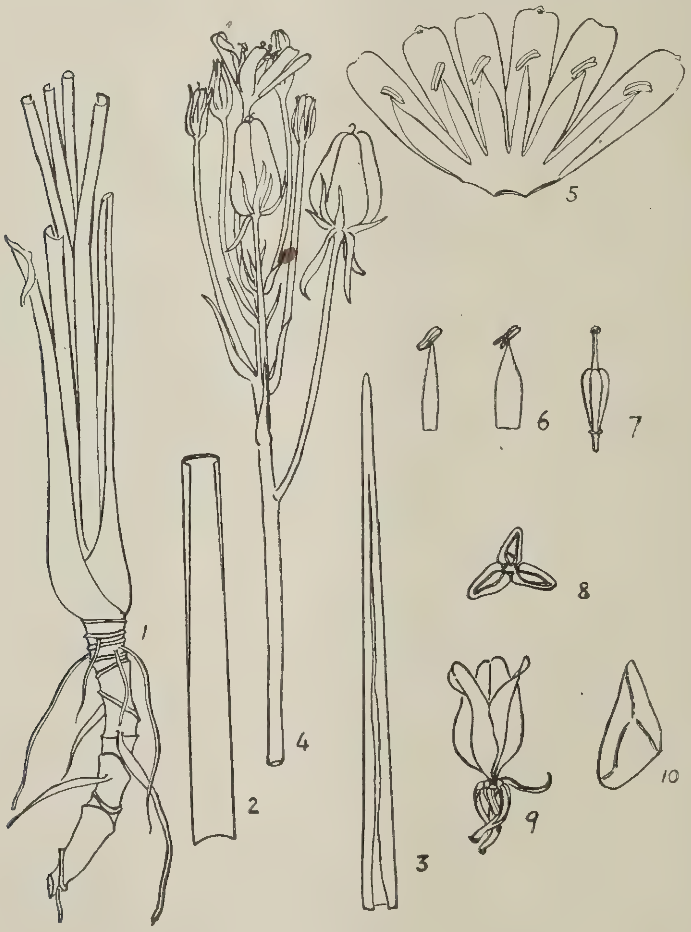

FIG. 1. *Elsiea corymbosa.* 1. Bulb and underground stem ×1. 2 & 3. Base and tip of leaf ×1. 4. Inflorescence ×1. 5. Perianth × 2. 6. Stamens × 2. 7. Gynaecium × 2. 8. Transverse section of half-ripe fruit × 2. 9. Ripe capsule × 2. 10. Seed × 4.

1. **Elsiea corymbosa** Leighton.

Planta alt. ad 70 cm. *Bulbus* elongatus ; *caudex* persistens, foliorum delapsorum cicatricibus annularibus numerosis circumcingentibus indutus. *Radices* fibrosi vel carnosuli. *Folia* linearia, erecta, glabra, canaliculata, marginibus incurvis, apicibus teretibus. *Inflorescentia* erecta, corymbosa. *Bracteae* pedicellis breviores. *Perianthium* album, segmentis patentibus, obtusis. *Stamina* subaequalia in tubi faucibus adnata. *Ovarium* obconicum substipitatum. *Stylus* crassiusculus ; *stigma* capitatum, papillosum. *Capsula* acute angulata, stipitata. *Semina* atra, planiuscula.

Plants up to 70 cm. high, usually about 40—50 cm. Bulb-scales elongate, almost imbricate, since they encircle the axis only at the base. The axis of the bulb persists, forming an underground stem on which the scars of old leaves are conspicuous. This stem gives rise to both fibrous and fleshy roots. Leaves 3—5, synanthous, linear erect, glabrous, channelled down the upper face, rounded on the under side, margins infolded, apices terete, 15—40 cm. long, up to 14 mm., usually 6—10 mm wide. Inflorescence erect, corymbose, flowers few to many, crowded. Bracts shorter than the pedicels. Pedicels 15—50 mm. long. Perianth white 10—14 mm. long ; segments obtuse 3—3.5 mm. wide, spreading in the upper half, joined near base to form a tube 3—4 mm. long. Stamens inserted at the throat of the tube ; filaments 6—8 mm. long, 3 outer about 1 mm., 3 inner about 2 mm. broad. Ovary obconic, substipitate. Style shorter than the ovary, stigma capitate, papillose. Capsule sharply angled, stipitate, depressed at the apex. Seeds flattish, almost winged round the edges. Perianth persistent, somewhat reflexed and exceeded by the capsule. Fl. Dec.—Jan.

Hab. Cape Province : Stellenbosch Div. ; swamps south-west of Victoria Peak (burnt a year before) 3000—3500 ft. *Esterhuysen* 9783. (*Type*, in Bolus Herbarium and National Botanic Gardens Herbarium); swampy ground (previously burnt), south-west slopes of Victoria Peak. *Esterhuysen* 9787. Ceres Div. : Summit of Mostert's Hoek Twins 6400 ft. *E. Wasserfall* 790 (National Botanic Gardens Herbarium).

2. **Elsiea Flanaganii** (Bak.) Leighton comb. nov.

Plants 15—20 cm. high, bulb long-ovoid 10—12 mm. diam. Roots produced from the persistent bulb axis. Leaves usually 2, one short and broad 3—5 cm. long, 3—5 mm. broad, one linear, ciliated when young on the margins and the ribs, 10—30 cm. long, 2—3 mm. broad. Peduncle slender, raceme few-flowered. Pedicels short ascending, bracts broadly ovate, equal to or exceeding the pedicels. Perianth white, funnel-shaped 10—14 mm. long, segments obtuse, joined at the base to form a tube 2 mm. long. Stamens 5—6 mm. long, filaments subequal, inserted at the throat of the perianth tube. Ovary obconic. Capsule sharply angled, stipitate. Seeds black, rugose. Fl. Dec.—Jan.

Hab. Natal: Summit of Mont aux Sources; *Flanagan* 2028. (*Type*): *Esterhuysen* Bolus Herb. 22805.

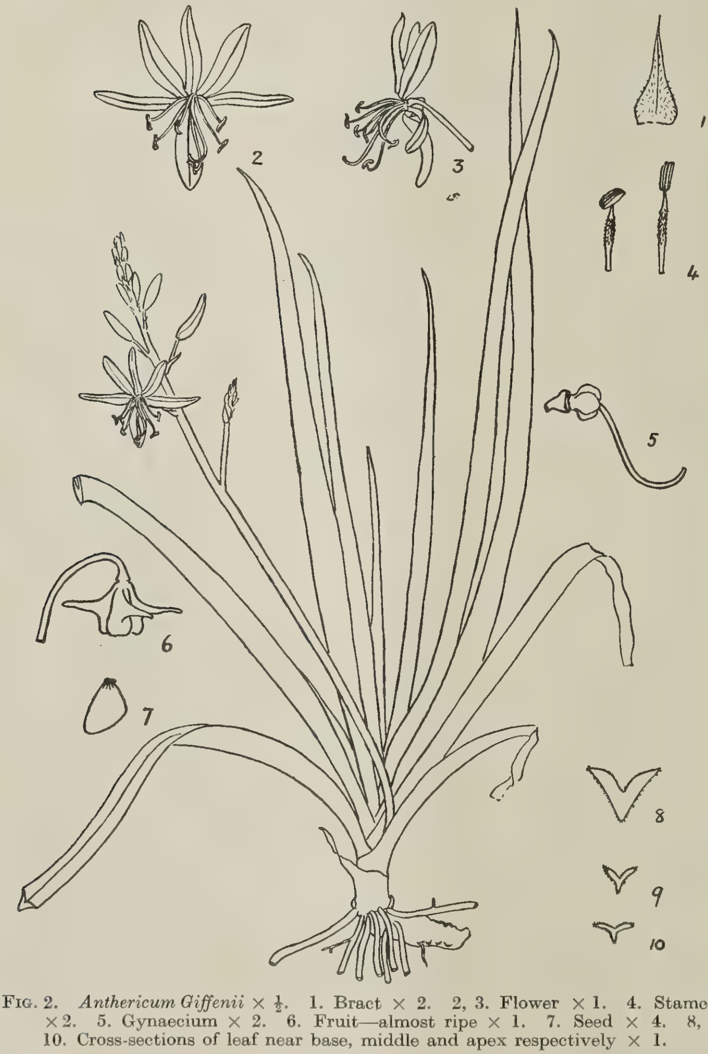

FIG. 2. *Anthericum Giffenii* × ½. 1. Bract × 2. 2, 3. Flower × 1. 4. Stamens × 2. 5. Gynaecium × 2. 6. Fruit—almost ripe × 1. 7. Seed × 4. 8, 9, 10. Cross-sections of leaf near base, middle and apex respectively × 1.

Anthericum Giffenii Leighton (Liliaceae).

Planta alt. 25-50 cm. *Rhizoma* inclinatum radicibus subcarnosis. *Folia* longa, erecta, triquetra, canaliculata, pilosa, acuta. *Scapus* simplex vel ramosus, pilosus. *Racemus* laxus. *Bracteae* membranaceae, sparse pilosae. *Pedicelli* apice articulati. *Perianthium* album, segmentis reflexis, inferne viridi- vel brunneo-nervatis. *Filamenta* muricata. *Capsula* cornuta, sparse glanduloso-pilosa, cornibus patentibus, in medio loculi positis, loculis 1—2 spermis, seminibus brunneis.

Plants 25—50 cm. high. Rhizomes fairly stout, with somewhat fleshy roots. Leaves 10—12 to a shoot, bases clasping and encircling the shoot, laminae triquetrous, erect when young, often drooping or recumbent with age, surface densely but softly pilose, each face 8—14 mm. diam. Inflorescence a lax, simple or branched raceme varying greatly in length from 25—150 cm. This factor depends on whether the plant is growing under favourable conditions. Flowers often about 3 cm. diam. Perianth-segments white with a greenish median stripe which turns red-brown as the flower fades, 14—16 mm. long, three outer segments 2—3 mm. wide, three inner 3—5 mm. wide. Stamens unequal, 5—11 mm. long, filaments muricated. Ovary depressed, triquetrous, each loculus producing a lateral horn 4—5 mm. long as the fruit develops. Capsule opens widely, 1—2 seeds in each chamber, seeds brownish with a well marked hilum. Fl. Sept.—March.

Hab. Cape Province: Victoria East Div.; Shady places in kloof and on dry hillside, on farm Naude's Hoek. *Giffen* 783 (July 1943). (*Type* in Bolus Herbarium and Herbarium National Botanic Gardens); *Giffen* 783b, coll. Oct. 1943.

Mr. M. H. Giffen of the South African Native College, Fort Hare, who collected this plant, has sent very ample and well prepared material, as well as notes and sketches which have been of great assistance in preparing the description. The plant from which the figures were drawn was grown in a pot at the Bolus Herbarium and the perianth seems to be narrower and somewhat differently orientated from those grown and sketched by Mr. Giffen. He states that the flowers open between 2 and 3 p.m. and close between 6 and 8 p.m. on bright sunny days. In dull weather they may not open at all.

This species differs from *Anthericum pilosum* Baker in the following respects —:

1. *A. Giffenii* has softer leaves with denser hairs.
2. *A. Giffenii* has hirsute bracts.
3. The capsules of *A. Giffenii* are horned.

Drosera curviscapa Salter. var. **Esterhuysenae** Salter, var. nov.

A forma typica ita differt :—*Foliorum* superficies superior in dimidio inferiore omnino glabra : tentacula exteriora incurva in folii dimido superiore in annulo ovali disposita, ea lacunae ovalis intervenientis glandibus paene sessilibus induta.

Differs from the typical form as follows :—*Leaves* cuneate-oblong, 1—2.5 cm. long, 3—8 mm. broad, green, densely adpressed-pubescent with long hairs beneath, ciliate, the upper surface entirely glabrous on the lower half : tentacles situated on the upper half of the leaf only, those at or near the margins long, curving inwards, forming a dense raised oval ring surrounding a central oval hollow space 2.5—6 mm. long and 2—4 mm. broad, dotted with numerous almost sessile glands.

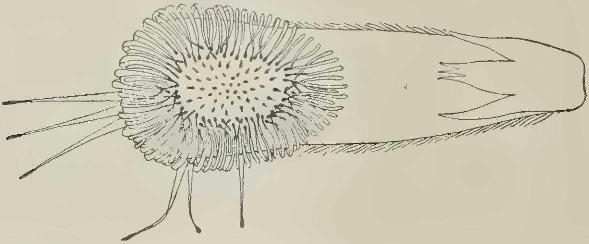

FIG. 3. *Drosera curviscapa*, var. *Esterhuysenae*. Upper surface of a leaf, showing the stipule and the position of the tentacles, a few of those on the margin spread out × 3. (*Esterhuysen* 9802). *Del.* T.M.S.

Hab. Cape Province : border of Stellenbosch and Caledon Divisions ; Hottentots Holland, on sandy slopes north-east of Sneeuwkop and between Sneeuwkop and Guardian Peak, about 3,000 ft., *Esterhuysen* 9802 (*type* in Bolus Herbarium) : between Sneeuwkop and Landdrostkop, *Esterhuysen* 1368. Fl. Dec.—Jan.

Though identical in its stipules, curving scape and floral characters with the typical form of *D. curviscapa*, which was described in Vol. V (1939) pp. 158—161 of this Journal, this well marked variety can at once be distinguished by the arrangement of the tentacles, which gives the leaves a somewhat spoonlike appearance. As in the typical form the tentacles around the anterior margin differ from the remainder, being longer, wider at the base and bearing narrow-linear glands, on the largest leaves nearly 1 mm. long. It appears to grow in drier situations than the typical form.